INVASIVE SPECIES CONTROL PROJECTS (R1 SMALL GRANTS)
CY 2014 FINAL REPORT

Project Title: Control of Camelthorn on McNary Refuge

Station: McNary NWR (Mid-Columbia River NWR Complex)

Contact Person: Kevin Goldie

Project Description: The project as described was to chemically control camelthorn (*Alhagi maurorum*) on the Fee Hunt and Peninsula Units of McNary Refuge. Camelthorn is a highly aggressive, deep-rooted, rhizomatous woody shrub that can invade and displace intact native habitats. It has little to no forage or cover value and once fully established can form near monocultures, severely degrading habitat values. Camelthorn was known to infest approximately 300 acres within the Fee Hunt and Peninsula Units.

Invasive Species Targeted: Camelthorn (*Alhagi maurorum*)

Project Completion Date or Estimated Completion Date: 01-July-2014

Project Results: Camelthorn was chemically treated in late June and early July using ForeFront HL (aminopyralid + 2,4-D amine; 62719-630) and Milestone VM Plus (aka, Capstone; aminopyralid + triclopyr; EPA Reg # 62719-572). The original proposal called for using only Capstone. However, a supply problem necessitated the use of the ForeFront as the best available; based on past experiences ForeFront should work nearly as well as the Capstone on the camelthorn, and may work better on other invasive species growing with the camelthorn (e.g., swainsonpea (*Sphaerophysa salsula*)). The herbicide was applied using ATV-mounted sprayers and ATV tow-behind sprayers. Given the nature of the target species (a woody perennial) and the mode of actions of the herbicides (plant growth regulators), the true efficacy cannot be determined until 2015.

Unexpected commitments under the Sikes Act (i.e., weed treatment on Mountain Home and Fairchild Air Force Bases) coupled with bureaucratic difficulties in the hiring process meant we were unable to treat as many acres as had originally been intended. The Fee Hunt area was completed but only a portion of the Peninsula Unit was treated. The dry winter and spring, coupled with the abnormally warm temperatures of spring and summer, may have helped in this regard by reducing both the growth period and this year's seed production. The remainder of the Peninsula Unit has been added to this year's target list, using the remainder of the purchased chemical.

Number of Acres Treated: 105 acres

Number of Acres Inventoried and/or Mapped:

Number of Acres Restored: unk

Total Grant Amount: $27,000

Breakdown of Expenditures*:

Category	**Total $ Spent**	**% of Total Grant**
Equipment/Supplies	$85	0.3%
Chemical	$2,165	8.0%
Biocontrol Agents	---	---
Travel (includes fuel costs)	$1,250	4.6%
Biotech/Contractor Salary	$23,500	87.1%
Restoration Materials	---	---
Other (Describe)	---	---
TOTAL	$27,000	100%

** estimated*